

ABSTRACT

An optical device for determining the presence of a first nucleic acid in a sample comprising a second
5 nucleic acid complementary to the first nucleic acid and
able to hybridize with the first nucleic acid under
hybridizing conditions, the second nucleic acid being
bonded to a solid support, wherein the solid support is
formed as a light reflecting surface having a first
10 thickness when bonded to the second nucleic acid, and
wherein the light reflecting surface has a second
thickness, wherein the first and second nucleic acids are
hybridized, and the first and second thicknesses can be
distinguished by their effect on the light reflecting
15 properties of said light reflecting surface independent of
any label present on the first nucleic acid.